

BEST AVAILABLE COPY

499

Access DB#

26303

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: PATEL SUDHAKER Examiner #: 77018 Date: 9/23/02
 Art Unit: 211824 Phone Number 308 4709 Serial Number: 09895843
 Mail Box and Bldg/Room: CM14E7 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

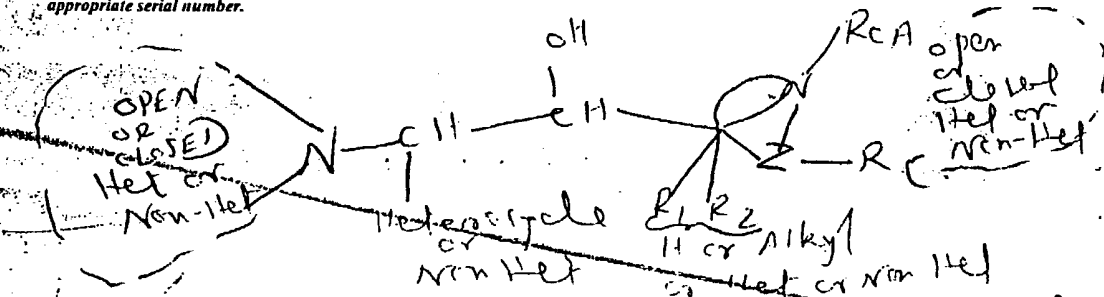
Title of Invention: COMPOUNDS TO TREAT ALZHEIMER'S DISEASE

Inventors (please provide full names):

JAMES P. Beek et al

Earliest Priority Filing Date: 6/30/2000

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.



Need info @ compounds, Compositions & method of treating ALZHEIMER'S Disease
 copy 1 claims enclosed

Point of Contact:
 Barb O'Brien
 Technical Information Specialist
 STIC CM1 6A05 308-4291

Need d f b b h l s n i s i - (A P L U S)
 H H C
 P R

STAFF USE ONLY

Searcher: <u>ASB</u>	Type of Search	Vendors and cost where applicable
Searcher Phone #:	NA Sequence (#) _____	STN <u>530</u>
Searcher Location:	AA Sequence (#) _____	Dialog _____
Date Searcher Picked Up:	Structure (#) <u>2</u>	Questel/Orbit _____
Date Completed: <u>9-26-02</u>	Bibliographic _____	Dr. Link _____
Searcher Prep & Review Time: <u>90</u>	Litigation _____	Lexis/Nexis _____
Clerical Prep Time:	Fulltext _____	Sequence Systems _____
Online Time: <u>35</u>	Patent Family _____	WWW/Internet _____
	Other _____	Other (specify) <u>Chem Draw</u>

Handwritten:
 8/20/03
 8:11 PM
 1624

Welcome to STN International! Enter x:x

LOGINID:sssptal611sxp

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

***** Welcome to STN International *****

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
 NEWS 2 "Ask CAS" for self-help around the clock
 NEWS 3 SEP 09 CA/CAPLUS records now contain indexing from 1907 to the
 present
 NEWS 4 Jul 15 Data from 1960-1976 added to RDISCLOSURE
 NEWS 5 Jul 21 Identification of STN records implemented
 NEWS 6 Jul 21 Polymer class term count added to REGISTRY
 NEWS 7 Jul 22 INPADOC: Basic index (/BI) enhanced; Simultaneous Left and
 Right Truncation available
 NEWS 8 AUG 05 New pricing for EUROPATFULL and PCTFULL effective
 August 1, 2003
 NEWS 9 AUG 13 Field Availability (/FA) field enhanced in BEILSTEIN
 NEWS 10 AUG 15 PATDPAFULL: one FREE connect hour, per account, in
 September 2003
 NEWS 11 AUG 15 PCTGEN: one FREE connect hour, per account, in
 September 2003
 NEWS 12 AUG 15 RDISCLOSURE: one FREE connect hour, per account, in
 September 2003
 NEWS 13 AUG 15 TEMA: one FREE connect hour, per account, in
 September 2003
 NEWS 14 AUG 18 Data available for download as a PDF in RDISCLOSURE
 NEWS 15 AUG 18 Simultaneous left and right truncation added to PASCAL
 NEWS 16 AUG 18 FROSTI and KOSMET enhanced with Simultaneous Left and Right
 Truncation
 NEWS 17 AUG 18 Simultaneous left and right truncation added to ANABSTR
 NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT
 MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
 AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
 NEWS HOURS STN Operating Hours Plus Help Desk Availability
 NEWS INTER General Internet Information
 NEWS LOGIN Welcome Banner and News Items
 NEWS PHONE Direct Dial and Telecommunication Network Access to STN
 NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
 specific topic.

All use of STN is subject to the provisions of the STN Customer
 agreement. Please note that this agreement limits use to scientific
 research. Use for software development or design or implementation
 of commercial gateways or other similar uses is prohibited and may
 result in loss of user privileges and other penalties.

***** STN Columbus *****

FILE 'HOME' ENTERED AT 12:32:13 ON 20 SEP 2003

=> file reg

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 12:32:24 ON 20 SEP 2003

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 18 SEP 2003 HIGHEST RN 588668-76-2

DICTIONARY FILE UPDATES: 18 SEP 2003 HIGHEST RN 588668-76-2

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:

<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=>

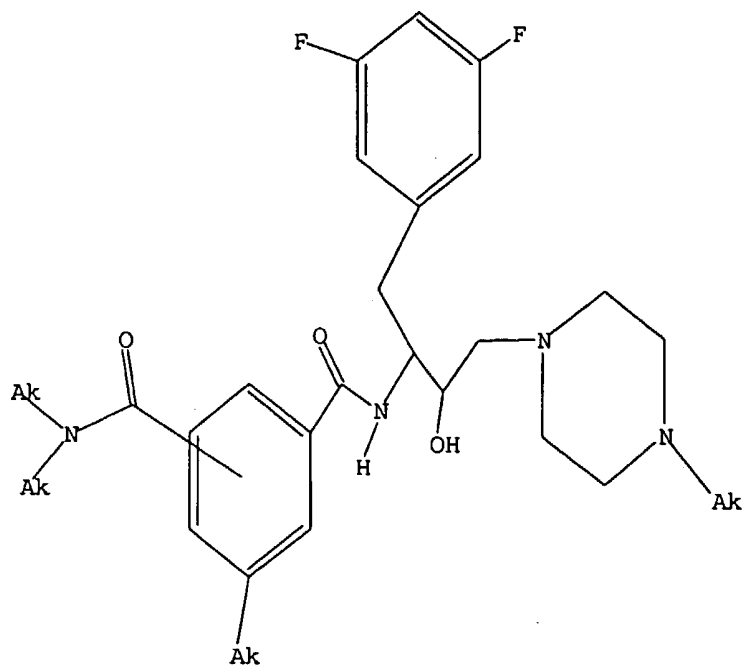
Uploading 09895843.1

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 12:32:45 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 7 TO ITERATE

100.0% PROCESSED 7 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 7 TO 298
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 12:32:52 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 103 TO ITERATE

100.0% PROCESSED 103 ITERATIONS 3 ANSWERS
SEARCH TIME: 00.00.01

L3 3 SEA SSS FUL L1

=> file marpat

COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
148.95	149.16

Patel

9/20/2003>

FILE 'MARPAT' ENTERED AT 12:34:23 ON 20 SEP 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 American Chemical Society (ACS)

FILE CONTENT: 1988-PRESENT (VOL 104 ISS 15-VOL 139 ISS11) (20030912ED)

MOST RECENT CITATIONS FOR PATENTS FROM FIVE MAJOR ISSUING AGENCIES
(COVERAGE TO THESE DATES IS NOT COMPLETE):

US 6605638 12 AUG 2003
DE 20300703 07 AUG 2003
EP 1335416 13 AUG 2003
JP 2003230397 19 AUG 2003
WO 2003068205 21 AUG 2003

Structure search limits have been raised. See HELP SLIMIT for the new,
higher limits.

=> s l1 sss full
FULL SEARCH INITIATED 12:34:32 FILE 'MARPAT'
FULL SCREEN SEARCH COMPLETED - 925 TO ITERATE

100.0% PROCESSED 925 ITERATIONS 2 ANSWERS
SEARCH TIME: 00.00.04

L4 2 SEA SSS FUL L1

=> d l4 fbib hitstr abs total
'HITSTR' IS NOT A VALID FORMAT FOR FILE 'MARPAT'

The following are valid formats:

MSTR ----- All Markush structure(s) and related text information
MSTR(n) -- Markush structure(n) and related text information
IDE ----- AN and MSTR

ABS ----- AB
ALL ----- BIB, AB, IND, RE, and MSTR
APPS ----- AI, PRAI
BIB ----- AN, plus Bibliographic Data and PI table (default)
CAN ----- List of CA abstract numbers without answer numbers
CBIB ----- AN, plus Compressed Bibliographic Data
DALL ----- ALL, delimited (end of each field identified)
DMAX ----- MAX, delimited for post-processing
FAM ----- AN, PI and PRAI in table, plus Patent Family data
FBIB ----- AN, BIB, plus Patent FAM
IND ----- Indexing Data
IPC ----- International Patent Classifications
MAX ----- ALL, plus Patent FAM, RE
PATS ----- PI, SO
SAM ----- CC, SX, TI, ST, IT, and FQHIT
SCAN ----- CC, SX, TI, ST, IT, and FQHIT (random display,
no answer numbers)
STD ----- BIB, IPC, and NCL (standard patent information)

IABS ----- ABS, indented with text labels
IALL ----- ALL, indented with text labels

IBIB ----- BIB, indented with text labels
 IMAX ----- MAX, indented with text labels
 ISTD ----- STD, indented with text labels
 OBIB ----- AN, plus Bibliographic Data (original)
 OIBIB ----- OBIB, indented with text labels

SBIB ----- BIB, no citations
 SIBIB ----- IBIB, no citations

HIT ----- Fields containing hit text terms and the Markush
 structures containing the query structure
 FHIT ----- Fields containing the first hit text terms and the first
 Markush structures containing the query structure
 QHIT ----- Fields containing query focus hit text terms and the
 Markush structures containing the query structure
 FQHIT ----- Fields containing the first query focus hit text terms and
 the first Markush structures containing the query structure

To display a particular field or fields, enter the display field
 codes. For a list of the display field codes, enter "HELP DFIELDS"
 at an arrow prompt (=>). Examples of formats include: "TI";
 "TI,MSTR,ABS"; "BIB,ST"; "TI,IND"; "TI,SO". You may specify the
 format fields in any order and the information will be displayed
 in the same order as the format specification.

All of the formats (except for SAM, SCAN, FHIT, HIT, FQHIT, or QHIT) may
 be used with the DISPLAY ACC command to display the record for a
 specified Accession Number.

ENTER DISPLAY FORMAT (BIB):bib

L4 ANSWER 1 OF 2 MARPAT COPYRIGHT 2003 ACS on STN
 AN 136:102193 MARPAT
 TI Preparation of disubstituted amines for treating Alzheimer's disease
 IN Beck, James P.; Gailunas, Andrea; Hom, Roy; Jagodzinska, Barbara; John,
 Varghese; Maillaird, Michel
 PA Elan Pharmaceuticals, Inc., USA; Pharmacia & Upjohn Company
 SO PCT Int. Appl., 286 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 5

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002002520	A2	20020110	WO 2001-US21000	20010702
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, FI, FR, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002143177	A1	20021003	US 2001-895843	20010629
AU 2001073132	A5	20020114	AU 2001-73132	20010702
PRAI US 2000-215323P		20000630		

US 2001-895843 20010629
WO 2001-US21000 20010702

L4 ANSWER 2 OF 2 MARPAT COPYRIGHT 2003 ACS on STN
AN 136:102192 MARPAT
TI Preparation of disubstituted amines for treating Alzheimer's disease
IN Beck, James P.; Gailunas, Andrea; Hom, Roy; Jagodzinska, Barbara; John,
Varghese; Maillaird, Michel
PA Elan Pharmaceuticals, Inc., USA; Pharmacia & Upjohn Company
SO PCT Int. Appl., 286 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002002518	A2	20020110	WO 2001-US20856	20010629
	WO 2002002518	A3	20020808		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	AU 2001073094	A5	20020114	AU 2001-73094	20010629
	US 2002016320	A1	20020207	US 2001-896874	20010629
	US 2003096864	A1	20030522	US 2001-895871	20010629
PRAI	US 2000-215323P		20000630		
	WO 2001-US20856		20010629		

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
106.87	256.03

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 12:35:21 ON 20 SEP 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 20 Sep 2003 VOL 139 ISS 13
FILE LAST UPDATED: 19 Sep 2003 (20030919/ED)

L Number	Hits	Search Text	DB	Time stamp
1	1946	("514/252.12,616,617").CCLS	USPAT	2003/02/28 16:39
2	1315	("544/358,398,402").CCLS	USPAT	2003/02/28 16:39
3	127	("514/252.12,616,617").CCLS and ("544/358,398,402").CCLS)	USPAT	2003/02/28 16:39
4	19	((("514/252.12,616,617").CCLS) and (("544/358,398,402").CCLS)) and alzheimer	USPAT	2003/02/28 16:39

82665
8711/04
1624

L Number	Hits	Search Text	DB	Time stamp
1	4037	("514/183,252.12,616,617").CCLS	USPAT	2004/02/28 13:48
2	1360	("544/358,398,402").CCLS	USPAT	2004/02/28 13:48
3	155	((("514/183,252.12,616,617").CCLS) and ("544/358,398,402").CCLS)	USPAT	2004/02/28 13:48
4	24	((("514/183,252.12,616,617").CCLS) and ("544/358,398,402").CCLS)) and Alzheimer	USPAT	2004/02/28 13:49

Handwritten:
 499
 8/11/02
 8/11/02

Robert
8/11/04
pro

cyclohexyl, pyridyl, pyrimidinyl, pyrazinyl, oxopyridinyl, diazinyl, triazolyl, thienyl, oxazolyl, oxadiazolyl, thiazolyl, pyrrolyl, or furyl, optionally substituted. R3 is: H, hydroxy, lower-alkoxy, or lower-alkenyloxy; R4 is: H, lower-alkyl, lower-alkenyl, lower-alkoxy, hydroxy-lower-alkyl, lower-alkoxy-lower-alkyl, benzyl, oxo, or where R3 and R4 together are a bond, or as specified in the claims. Q is: ethylene, or is absent; X is: a bond, -O-, -S-, -CH-R11- (R11 defined in claims), -CHOR9- (R9 defined in claims), -OCO-, -CO-, or C:NOR10- (R10 is carboxyalkyl, alkoxycarbonylalkyl, alkyl or H), with the bond emanating from an O or S atom joining to a saturated C atom of group Z or to R1; W is: -O-, or -S-; Z is: lower-alkylene, lower-alkenylene, hydroxy-lower-alkylidene, -O-, -S-, -O-Alk- (Alk is a lower alkylene), -S-Alk-, -Alk-O-, or -Alk-S. N is: 1, or 0 or 1 when X is -O-CO; and where m is 0 or 1; with provisos.

=> d his

(FILE 'HOME' ENTERED AT 13:25:08 ON 28 FEB 2004)

FILE 'REGISTRY' ENTERED AT 13:25:18 ON 28 FEB 2004

L1 STRUCTURE UPLOADED
 L2 10 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 13:25:57 ON 28 FEB 2004

L3 8 S L2
 L4 234 S ALZHEIMER AND PIPERAZINE
 L5 0 S L3 AND L4
 L6 14 S L4 AND PREVENTING
 L7 21 S L4 AND PREVENTION
 L8 4 S L4 AND PREVENTION AND PREVENTING AND DISEASE

=> s l3 and alzheimer

L9 0 L3 AND ALZHEIMER

=> s l3 and prevention and preventing a disease

L10 0 L3 AND PREVENTION AND PREVENTING A DISEASE

*Update
8/11/04
Q55782*

Welcome to STN International! Enter x:x

LOGINID:sssptal611sxp

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

***** Welcome to STN International *****

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 SEP 09 CA/CAPLUS records now contain indexing from 1907 to the
present
NEWS 4 DEC 08 INPADOC: Legal Status data reloaded
NEWS 5 SEP 29 DISSABS now available on STN
NEWS 6 OCT 10 PCTFULL: Two new display fields added
NEWS 7 OCT 21 BIOSIS file reloaded and enhanced
NEWS 8 OCT 28 BIOSIS file segment of TOXCENTER reloaded and enhanced
NEWS 9 NOV 24 MSDS-CCOHS file reloaded
NEWS 10 DEC 08 CABA reloaded with left truncation
NEWS 11 DEC 08 IMS file names changed
NEWS 12 DEC 09 Experimental property data collected by CAS now available
in REGISTRY
NEWS 13 DEC 09 STN Entry Date available for display in REGISTRY and CA/CAPLUS
NEWS 14 DEC 17 DGENE: Two new display fields added
NEWS 15 DEC 18 BIOTECHNO no longer updated
NEWS 16 DEC 19 CROPU no longer updated; subscriber discount no longer
available
NEWS 17 DEC 22 Additional INPI reactions and pre-1907 documents added to CAS
databases
NEWS 18 DEC 22 IFIPAT/IFIUDB/IFICDB reloaded with new data and search fields
NEWS 19 DEC 22 ABI-INFORM now available on STN
NEWS 20 JAN 27 Source of Registration (SR) information in REGISTRY updated
and searchable
NEWS 21 JAN 27 A new search aid, the Company Name Thesaurus, available in
CA/CAPLUS
NEWS 22 FEB 05 German (DE) application and patent publication number format
changes

NEWS EXPRESS DECEMBER 28 CURRENT WINDOWS VERSION IS V7.00, CURRENT
MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
AND CURRENT DISCOVER FILE IS DATED 23 SEPTEMBER 2003
NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

All use of STN is subject to the provisions of the STN Customer
agreement. Please note that this agreement limits use to scientific
research. Use for software development or design or implementation
of commercial gateways or other similar uses is prohibited and may

result in loss of user privileges and other penalties.

***** STN Columbus *****

FILE 'HOME' ENTERED AT 13:25:08 ON 28 FEB 2004

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 13:25:18 ON 28 FEB 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 27 FEB 2004 HIGHEST RN 655785-05-0

DICTIONARY FILE UPDATES: 27 FEB 2004 HIGHEST RN 655785-05-0

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>

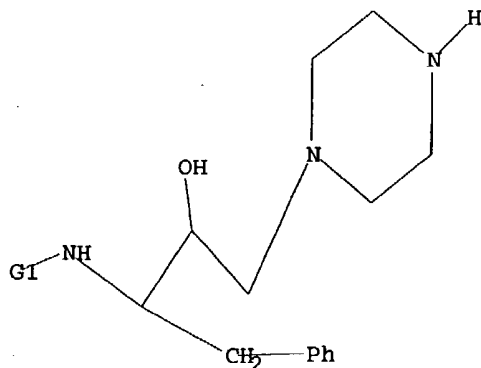
Uploading c:\program files\stnexp\queries\09895843.5

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



G1 H, Cb, Cy, Ak

Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss full

FULL SEARCH INITIATED 13:25:50 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 498 TO ITERATE

100.0% PROCESSED 498 ITERATIONS
SEARCH TIME: 00.00.01

10 ANSWERS

L2 10 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

155.42

155.63

FILE 'CAPLUS' ENTERED AT 13:25:57 ON 28 FEB 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 28 Feb 2004 VOL 140 ISS 10

FILE LAST UPDATED: 27 Feb 2004 (20040227/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l2

L3 8 L2

=> d l3 fbib hitstr abs total

L3 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:468210 CAPLUS

DN 135:61557

TI Preparation of amino acid derivatives as retroviral protease inhibitors

IN Chen, Xiaoqi; Kempf, Dale J.; Norbeck, Daniel W.

PA Abbott Laboratories, USA

SO U.S., 24 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

PI US 6251906 B1 20010626 US 1999-309141 19990510
 US 2001008892 A1 20010719 US 1998-85709P P 19980515
 US 2001-777282 20010206
 US 1998-85709P P 19980515
 US 1999-309141 A319990510

OS MARPAT 135:61557

IT 251105-64-3P 251105-79-0P 251112-24-0P

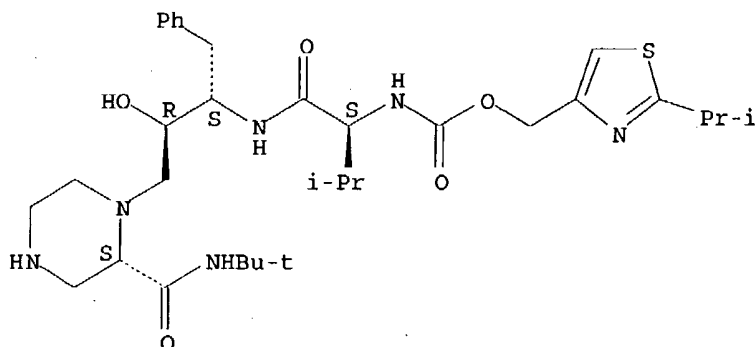
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

(preparation of amino acid derivs. as retroviral protease inhibitors)

RN 251105-64-3 CAPLUS

CN Carbamic acid, [(1S)-1-[[[(1S,2R)-3-[(2S)-2-[[[(1,1-dimethylethyl)amino]carbonyl]-1-piperazinyl]-2-hydroxy-1-(phenylmethyl)propyl]amino]carbonyl]-2-methylpropyl]-, [2-(1-methylethyl)-4-thiazolyl]methyl ester (9CI) (CA INDEX NAME)

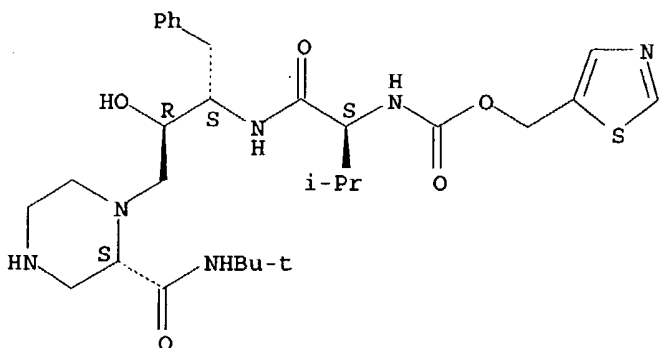
Absolute stereochemistry.



RN 251105-79-0 CAPLUS

CN Carbamic acid, [(1S)-1-[[[(1S,2R)-3-[(2S)-2-[[[(1,1-dimethylethyl)amino]carbonyl]-1-piperazinyl]-2-hydroxy-1-(phenylmethyl)propyl]amino]carbonyl]-2-methylpropyl]-, 5-thiazolylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

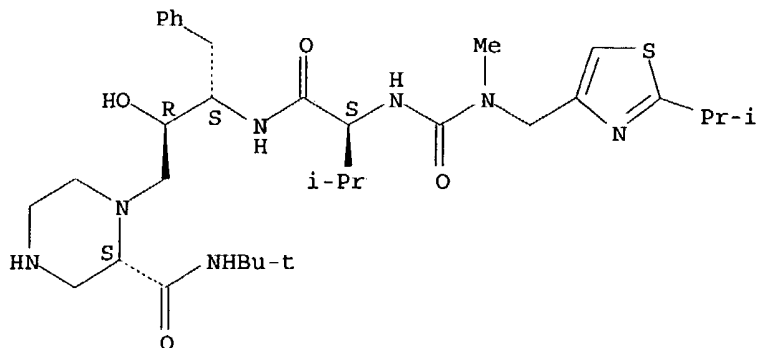


RN 251112-24-0 CAPLUS

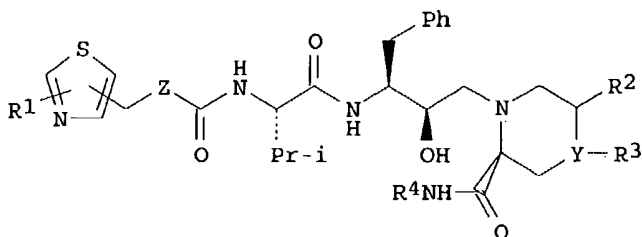
CN 2-Piperazinecarboxamide, N-(1,1-dimethylethyl)-1-[(2R,3S)-2-hydroxy-3-[[[(2S)-3-methyl-2-[[[methyl[[2-(1-methylethyl)-4-

thiazolyl)methyl]amino]carbonyl]amino]-1-oxobutyl]amino]-4-phenylbutyl]-,
(2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



GI



I

AB Amino acid derivs. I [R1 = H, alkyl, amino, alkylamino, dialkylamino, cycloalkyl; R2 = H, R3 = -WR5, where W is (CH2)0-6, O or S; Y = N or CH (with provisos) and R5 = alkyl or aryl; or R2R3 = (CH2)4; R4 = H, alkyl, cycloalkyl, aryl, (aryl)alkyl, heterocyclyl, (heterocyclyl)alkyl, heteroaryl, or (heteroaryl)alkyl; Z = O, S, CH2, (un)substituted imino] were prepared as retroviral proteases inhibitors, in particular for inhibiting human immunodeficiency virus (HIV) protease. Thus, 2-(1-methylethyl)-4-thiazolylmethyl [(1S)-1-[[[(1S,2R)-3-[(2S)-4-(1,3-benzodioxol-5-ylmethyl)-2-[[[(1,1-dimethylethyl)amino]carbonyl]-1-piperazinyl]-2-hydroxy-1-(phenylmethyl)propyl]amino]carbonyl]-2-methylpropyl]carbamate was prepared and showed 60% inhibition of HIV protease at 0.5 nM concentration

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:753234 CAPLUS
DN 132:3551
TI Preparation of amino acid derivatives as retroviral protease inhibitors
IN Chen, Xiaoqi; Kempf, Dale J.; Norbeck, Daniel W.; Mohammadi, Fariborz
PA Abbott Laboratories, USA
SO PCT Int. Appl., 81 pp.

CODEN: PIXXD2

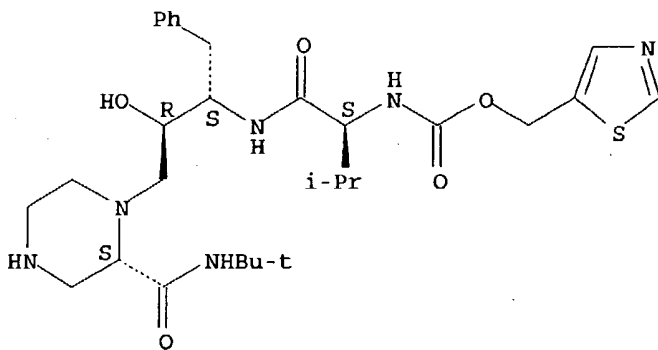
DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9959994	A1	19991125	WO 1999-US10130	19990507
	W: CA, JP, MX				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2331756	AA	19991125	US 1998-80028 A	19980515
				CA 1999-2331756	19990507
				US 1998-80028 A	19980515
				WO 1999-US10130W	19990507
	EP 1077977	A1	20010228	EP 1999-920411	19990507
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
				US 1998-80028 A	19980515
				WO 1999-US10130W	19990507
	JP 2002515501	T2	20020528	JP 2000-549612	19990507
				US 1998-80028 A	19980515
				WO 1999-US10130W	19990507
OS	MARPAT 132:3551				
IT	251105-79-0				
	RL: RCT (Reactant); RACT (Reactant or reagent)				
	(preparation of amino acid derivs. as retroviral protease inhibitors)				
RN	251105-79-0 CAPLUS				
CN	Carbamic acid, [(1S)-1-[[[(1S,2R)-3-[(2S)-2-[(1,1-dimethylethyl)amino]carbonyl]-1-piperazinyl]-2-hydroxy-1-(phenylmethyl)propyl]amino]carbonyl]-2-methylpropyl]-, 5-thiazolylmethyl ester (9CI) (CA INDEX NAME)				

Absolute stereochemistry.



IT 251105-64-3P 251112-24-0P

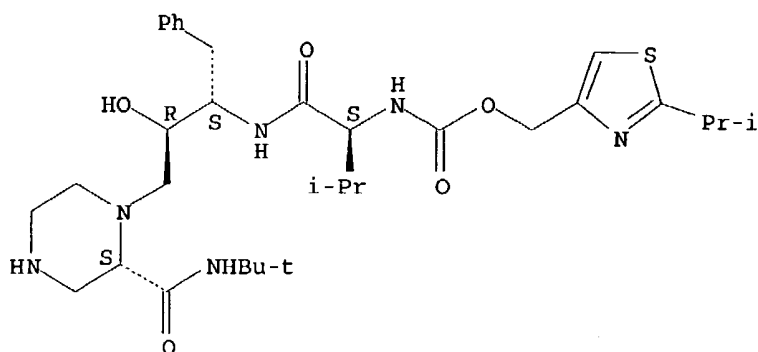
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of amino acid derivs. as retroviral protease inhibitors)

RN 251105-64-3 CAPLUS

CN Carbamic acid, [(1S)-1-[[[(1S,2R)-3-[(2S)-2-[(1,1-dimethylethyl)amino]carbonyl]-1-piperazinyl]-2-hydroxy-1-(phenylmethyl)propyl]amino]carbonyl]-2-methylpropyl]-, [2-(1-methylethyl)-4-thiazolyl]methyl ester (9CI) (CA INDEX NAME)

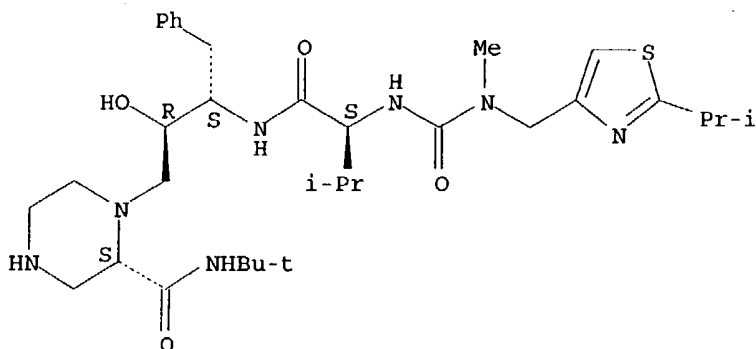
Absolute stereochemistry.



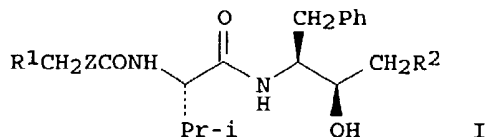
RN 251112-24-0 CAPLUS

CN 2-Piperazinecarboxamide, N-(1,1-dimethylethyl)-1-[(2R,3S)-2-hydroxy-3-[[[(2S)-3-methyl-2-[[[methyl[[2-(1-methylethyl)-4-thiazolyl]methyl]amino]carbonyl]amino]-1-oxobutyl]amino]-4-phenylbutyl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



GI

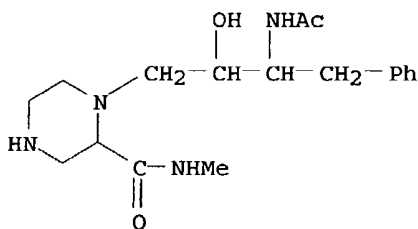


AB Compds. I [R1 = thiazolyl or alkyl-, amino-, alkylamino, dialkylamino, or cycloalkyl-substituted thiazolyl; R2 = 4-substituted 2-(un)substituted carbamoylpiperidino or -piperazin-1-yl; Z = O, S, CH2, NR7, where R7 = H or (un)substituted alkyl, aryl, arylalkyl, heterocyclyl, heterocyclylalkyl, heteroaryl, or heteroarylalkyl] were prepared as inhibitors of retroviral proteases, in particular human immunodeficiency virus (HIV) protease. Thus, 2-(1-methylethyl)-4-thiazolylmethyl [(1S)-1-[[[(1S,2R)-3-[(2S)-4-(1,3-benzodioxol-5-ylmethyl)-2-[[[(1,1-dimethylethyl)amino]carbonyl]-1-piperazinyl]-2-hydroxy-1-

(phenylmethyl)propyl]amino]carbonyl]-2-methylpropyl]carbamate was prepared and assayed for inhibition of HIV protease (60% at 0.5 nM) and antiviral activity (EC50 = 3 nM and LC50 = 12.76 μ M).

RE.CNT 6. THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:476011 CAPLUS
DN 125:184889
TI The design, modeling and evaluation of potential HIV protease inhibitors using BLITZ, an interactive computer graphics working tool
AU Mahmoudian, M.; Laczkowski, A.; Karrer, A.; Swanson, S. M.; Meyer, E. F. Jr:
CS Department of Pharmacology, University of Medical Sciences, Teheran, Iran
SO Journal of Sciences, Islamic Republic of Iran (1996), 7(1), 8-12
CODEN: JSIIEI; ISSN: 1016-1104
PB National Center for Scientific Research
DT Journal
LA English
IT 180911-02-8
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(design and modeling and evaluation of potential HIV protease inhibitors using interactive computer graphics working tool BLITZ in relation to AIDS treatment)
RN 180911-02-8 CAPLUS
CN 2-Piperazinecarboxamide, 1-[3-(acetylamino)-2-hydroxy-4-phenylbutyl]-N-methyl- (9CI) (CA INDEX NAME)



AB Several nonpeptide small mols. were designed as potential inhibitors of HIV protease and their structures were constructed by computer-aided mol. modeling and docked into the active site of HIV protease. Models of the complexes of inhibitors and the HIV protease were refined using nonbonded and H-bonding terms. The refined energy of selected complexes showed that the designed inhibitors fitted tightly into the active site of receptor cavity. The structure of the designed inhibitor (HI-082) was superimposed on the mol. of haloperidol (which has been reported to have anti-HIV protease activity) and it was found that they share a number of common structural features. These results showed that these small nonpeptide mols. interact strongly with the HIV protease and may therefore inhibit its action in which case they would be potential anti-AIDS agents.

L3 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:367737 CAPLUS
DN 125:58548
TI Piperazinecarboxamide derivative HIV protease inhibitors useful for the

treatment of AIDS

IN Kim, Byeong Moon; Vacca, Joseph P.

PA Merck and Co., Inc., USA

SO Brit. UK Pat. Appl., 53 pp.

CODEN: BAXXDU

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2292146	A1	19960214	GB 1995-15802	19950801
				US 1994-289477	19940811
	US 5650412	A	19970722	US 1995-548415	19951026
				US 1994-289477	19940811

OS MARPAT 125:58548

IT 165879-79-8P

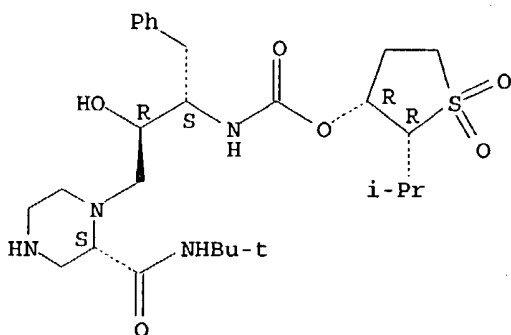
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of piperazinecarboxamide derivs. as HIV protease inhibitors)

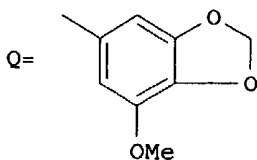
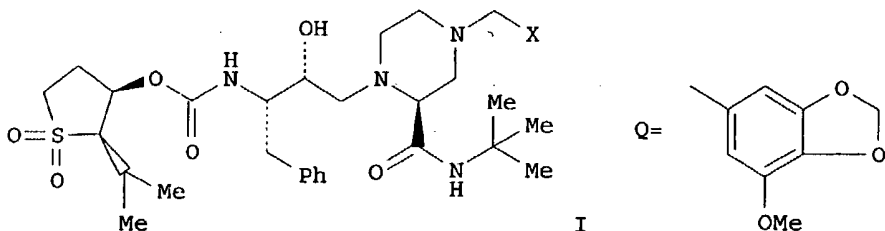
RN 165879-79-8 CAPLUS

CN Carbamic acid, [3-[2-[[[(1,1-dimethylethyl)aminolcarbonyl]-1-piperazinyl]-2-hydroxy-1-(phenylmethyl)propyl]-, tetrahydro-2-(1-methylethyl)-1,1-dioxido-3-thienyl ester, [2R-[2 α ,3 α [1S*,2R*,3(S*)]]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



GI



AB Title compds. I [X = stable 8- to 10-membered bicyclic heterocycle, any ring of which may be saturated or unsatd., and which consists of C atoms and 1-3 heteroatoms selected from N, S, and O, with said heterocycle (un)substituted with OH, halo, C1-4 alkyl, C1-4 alkoxy, or oxo; with proviso that X \neq thieno[2,3-b]thien-2-yl or quinolinyl], and pharmaceutically acceptable salts thereof, are useful as HIV protease inhibitors. For example, the preferred compound I [X = Q] (II) was prepared in 68% yield by reductive alkylation of the corresponding piperazine derivative [multi-step preparation given] with 3-methoxy-4,5-methylenedioxybenzaldehyde and NaBH(OAc3). In a cell-spread assay using MT-4 lymphoid cells infected with wild-type HIV-1, II had CIC95 of 25 nM.

L3 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:857593 CAPLUS

DN 124:86938

TI Substituted alkylpyridines as P3' ligands for the hydroxyethylpiperazine class of HIV-1 protease inhibitors: improved pharmacokinetic profiles

AU Kim, B. Moon; Hanifin, Colleen M.; Zartman, C. Blair; Vacca, Joseph P.; Michelson, Stuart R.; Lin, Jiunn H.; Chen, I.-W.; Vastag, Kari; Darke, Paul L.; et al.

CS Department of Medical Chemistry, Merck Research Laboratories, West Point, PA, 19486, USA

SO Bioorganic & Medicinal Chemistry Letters (1995), 5(19), 2239-44

CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier

DT Journal

LA English

IT 165879-79-8

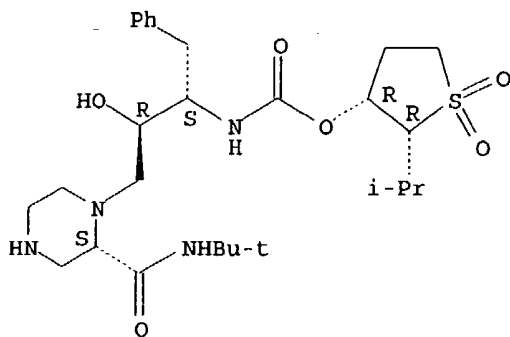
RL: RCT (Reactant); RACT (Reactant or reagent)

([[[(alkylamino)carbonyl]piperazinyl]hydroxyalkyl]carbamic acid thienyl ester S,S-dioxide derivs. as HIV inhibitors)

RN 165879-79-8 CAPLUS

CN Carbamic acid, [3-[2-[[[(1,1-dimethylethyl)amino]carbonyl]-1-piperazinyl]-2-hydroxy-1-(phenylmethyl)propyl]-, tetrahydro-2-(1-methylethyl)-1,1-dioxido-3-thienyl ester, [2R-[2 α ,3 α [1S*,2R*,3(S*)]]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



AB As a systematic approach to develop HIV-1 protease inhibitors exhibiting desirable pharmacokinetic profiles, hydroxyethylpiperazine series of inhibitors containing various mono- or dialkyl-substituted pyridylmethyl groups have been examined. Very high enzyme inhibitory potency and antiviral

activity in a whole cell assay were observed with these inhibitors and, when administered orally to dogs, selected compds. in this series exhibited prolonged half-lives compared to the non-substituted pyridylmethyl compound, i.e., [2R-[2 α ,3 α [1S*,2R*,3(S*)]]]-[3-[2-[[[(1,1-dimethylethyl)amino]carbonyl]-4-(4-pyridinylmethyl)-1-piperazinyl]-2-hydroxy-1-(phenylmethyl)propyl]carbamic acid tetrahydro-2-(1-methylethyl)-3-thienyl ester S,S-dioxide.

L3 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:711972 CAPLUS

DN 123:112077

TI Preparation of piperazine derivatives as HIV protease inhibitors

IN Kim, Byeong Moon; Vacca, Joseph P.; Ghosh, Arun K.; Guare, James P., Jr.; Huff, Joel R.; Hungate, Randall W.; Lee, Hee Yoon; Thompson, Wayne J.

PA Merck and Co., Inc., USA

SO PCT Int. Appl., 82 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9418192	A1	19940818	WO 1994-US1370	19940207
	W: AU, BB, BG, BR, BY, CA, CN, CZ, FI, HU, JP, KR, KZ, LK, LV, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, UZ				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9461352	A1	19940829	US 1993-17090	19930212
				AU 1994-61352	19940207
				US 1993-17090	19930212
				WO 1994-US1370	19940207

OS MARPAT 123:112077

IT 165879-79-8P

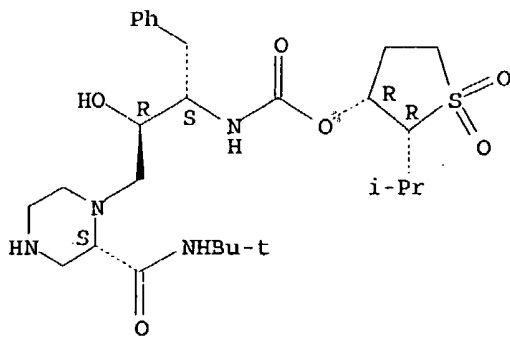
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of piperazine derivs. as HIV protease inhibitors)

RN 165879-79-8 CAPLUS

CN Carbamic acid, [3-[2-[[[(1,1-dimethylethyl)amino]carbonyl]-1-piperazinyl]-2-hydroxy-1-(phenylmethyl)propyl]-, tetrahydro-2-(1-methylethyl)-1,1-dioxido-3-thienyl ester, [2R-[2 α ,3 α [1S*,2R*,3(S*)]]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 159462-59-6

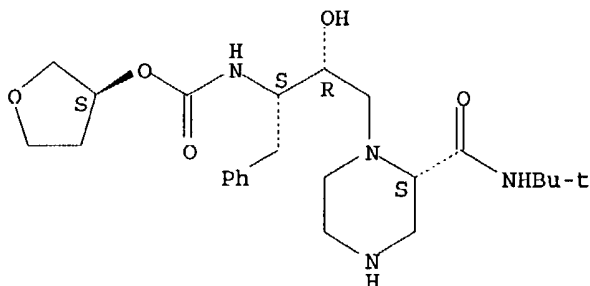
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of piperazine derivs. as HIV protease inhibitors)

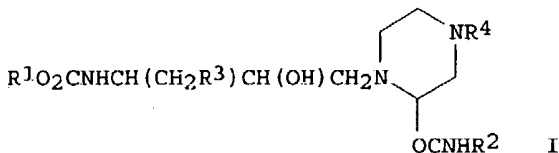
RN 159462-59-6 CAPLUS

CN Carbamic acid, [3-[2-[[[(1,1-dimethylethyl)amino]carbonyl]-1-piperazinyl]-2-hydroxy-1-(phenylmethyl)propyl]-, tetrahydro-3-furanyl ester, [2S-[1[1R*(R*),2S*],2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



GI



AB Title compds. I (R1 = 5-7-membered carbocyclyl, 5-7-membered heterocyclyl; R2 = C1-5 alkyl, 5-7-membered carbocyclyl; R3 = Ph, C5-7 cycloalkyl; R4 = CO2, SO3, 5-7-membered heterocyclyl, C1-4 alkenyl, C3-5 cycloalkyl, etc.) or a salt thereof, useful for treating infection of HIV and AIDS, are prepared To N-tert-butyl-1-[3'-(S)-[3''-(S)-tetrahydrofuran-2-ylmethoxycarbonylamino]-2'-(R)-hydroxy-4'-phenylbutyl]piperazine-2(S)-carboxamide and 3-hydroxybenzaldehyde in MeOH were added NaBH3CN and AcOH to give title compound N-tert-butyl-1-[3'-(S)-[3''-(S)-tetrahydrofuran-2-ylmethoxycarbonylamino]-2'-(R)-hydroxy-4'-phenylbutyl]-4-(3'-hydroxyphenylmethyl)piperazine-2(S)-carboxamide which inhibited microbial expressed HIV protease with IC50 0.1-10 nM.

L3 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:120890 CAPLUS

DN 122:150813

TI A new hydroxyethylamine class of HIV-1 protease inhibitors with high antiviral potency and oral bioavailability

AU Kim, B. Moon; Vacca, Joseph P.; Guare, James P.; Hanifin, Colleen; Michelson, Stuart R.; Darke, Paul L.; Zugay, Joan A.; Emini, Emilio A.; Schleif, William; et al.

CS Dep. Medicinal Chem., Merck Research Labs., West Point, PA, 19486, USA

SO Bioorganic & Medicinal Chemistry Letters (1994), 4(19), 2273-8

CODEN: BMCLE8; ISSN: 0960-894X

DT Journal

LA English

IT 159462-59-6P 159462-81-4P 159462-82-5P

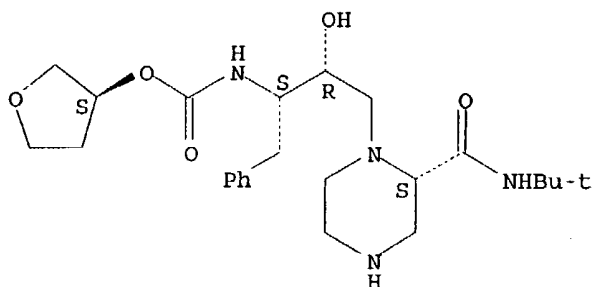
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(structure of hydroxyethylamine class of HIV-1 protease inhibitors with high antiviral potency and oral bioavailability)

RN 159462-59-6 CAPLUS

CN Carbamic acid, [3-[2-[[[(1,1-dimethylethyl)amino]carbonyl]-1-piperazinyl]-2-hydroxy-1-(phenylmethyl)propyl]-, tetrahydro-3-furanyl ester, [2S-[1[1R*(R*),2S*],2R*]]- (9CI) (CA INDEX NAME)

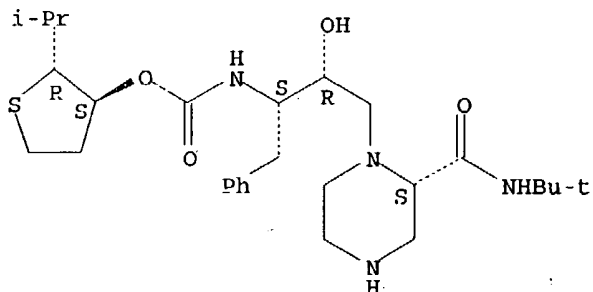
Absolute stereochemistry.



RN 159462-81-4 CAPLUS

CN Carbamic acid, [3-[2-[[[(1,1-dimethylethyl)amino]carbonyl]-1-piperazinyl]-2-hydroxy-1-(phenylmethyl)propyl]-, tetrahydro-2-(1-methylethyl)-3-thienyl ester, [2R-[2 α ,3 β [1S*,2R*(S*)]]]- (9CI) (CA INDEX NAME)

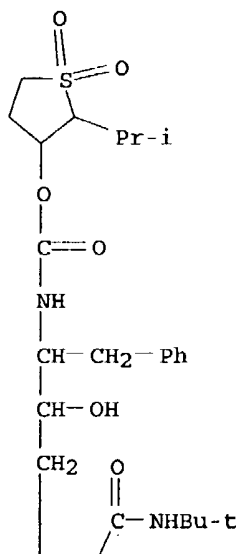
Absolute stereochemistry.



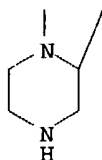
RN 159462-82-5 CAPLUS

CN Carbamic acid, [3-[2-[[[(1,1-dimethylethyl)amino]carbonyl]-1-piperazinyl]-2-hydroxy-1-(phenylmethyl)propyl]-, tetrahydro-2-(1-methylethyl)-1,1-dioxido-3-thienyl ester, [2R-[2 α ,3 β [1S*,2R*,3(S*)]]]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



AB A new hydroxyethylamine class of inhibitors was designed combining features from a clin. candidate, L-735524, along with small heterocyclic P2-ligands developed in these labs and their structure-activity relationship was studied.. Highly potent protease inhibitors possessing subnanomolar IC50's have been identified, which exhibit good antiviral potency against HIV-1 in cell culture. L-738872, a representative inhibitor in this class, showed 34% oral bioavailability in dogs.

L3 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1990:441332 CAPLUS
 DN 113:41332
 TI Preparation of peptide amides as human immunodeficiency virus inhibitors
 IN Handa, Balraj Krishan; Machin, Peter James; Martin, Joseph Armstrong;
 Redshaw, Sally; Thomas, Gareth John
 PA Hoffmann-La Roche, F., und Co. A.-G., Switz.
 SO Eur. Pat. Appl., 69 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 346847	A2	19891220	EP 1989-110717	19890613
	EP 346847	A3	19911023		
	EP 346847	B1	19940511		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
				GB 1988-13940	A 19880613
				GB 1989-8035	A 19890410
US	5157041	A	19921020	US 1989-362621	19890605
				GB 1988-13940	A 19880613
				GB 1989-8035	A 19890410
ZA	8904285	A	19900228	ZA 1989-4285	19890606
				GB 1988-13940	A 19880613
AU	8936130	A1	19891214	AU 1989-36130	19890607
AU	624144	B2	19920604		
				GB 1988-13940	A 19880613
				GB 1989-8035	A 19890410
HU	51254	A2	19900428	HU 1989-2903	19890607
HU	205898	B	19920728		
				GB 1988-13940	A 19880613
				GB 1989-8035	A 19890410
DK	8902863	A	19891214	DK 1989-2863	19890612
DK	172747	B1	19990628		
				GB 1988-13940	A 19880613
				GB 1989-8035	A 19890410
NO	8902407	A	19891214	NO 1989-2407	19890612
NO	175715	B	19940815		
NO	175715	C	19941123		
				GB 1988-13940	A 19880613
				GB 1989-8035	A 19890410
JP	02042048	A2	19900213	JP 1989-149265	19890612
JP	2515019	B2	19960710		
				GB 1988-13940	A 19880613
				GB 1989-8035	A 19890410
KR	9705905	B1	19970422	KR 1989-8040	19890612
				GB 1988-13940	A 19880613
				GB 1989-8035	A 19890410
FI	8902881	A	19891214	FI 1989-2881	19890613
FI	95693	B	19951130		
FI	95693	C	19960311		
				GB 1988-13940	A 19880613
				GB 1989-8035	A 19890410
AT	105549	E	19940515	AT 1989-110717	19890613
				GB 1988-13940	A 19880613
				GB 1989-8035	A 19890410
				EP 1989-110717	A 19890613
ES	2052815	T3	19940716	ES 1989-110717	19890613
				GB 1988-13940	A 19880613
				GB 1989-8035	A 19890410
US	5446161	A	19950829	US 1992-916812	19920720
				GB 1988-13940	A 19880613
				GB 1989-8035	A 19890410
				US 1989-362621	A319890605
US	5554756	A	19960910	US 1995-391380	19950217
				GB 1988-13940	A 19880613
				GB 1989-8035	A 19890410
				US 1989-362621	A319890605
				US 1992-916812	A319920720
US	5652369	A	19970729	US 1995-394523	19950406

GB 1988-13940 A 19880613
 GB 1989-8035 A 19890410
 US 1989-362621 A319890605
 US 1992-916812 A319920720
 US 1995-398478 19950410
 GB 1988-13940 A 19880613
 GB 1989-8035 A 19890410
 US 1989-362621 A319890605
 US 1992-916812 A319920720

US 5620987 A 19970415

OS MARPAT 113:41332

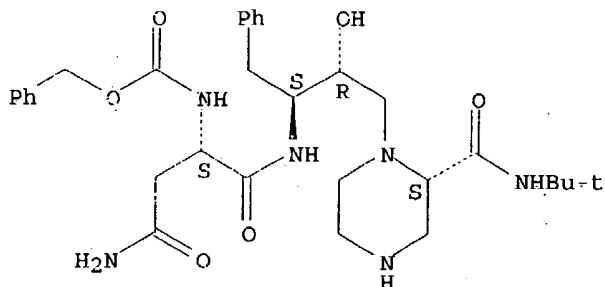
IT 128019-64-7P 128111-43-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (preparation of, as HIV protease inhibitor)

RN 128019-64-7 CAPLUS

CN Carbamic acid, [3-amino-1-[[[3-[2-[[[(1,1-dimethylethyl)amino]carbonyl]-1-piperazinyl]-2-hydroxy-1-(phenylmethyl)propyl]amino]carbonyl]-3-oxopropyl]-, phenylmethyl ester, monohydrochloride, [2S-[1[1R*(R*),2S*],2R*]]- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.

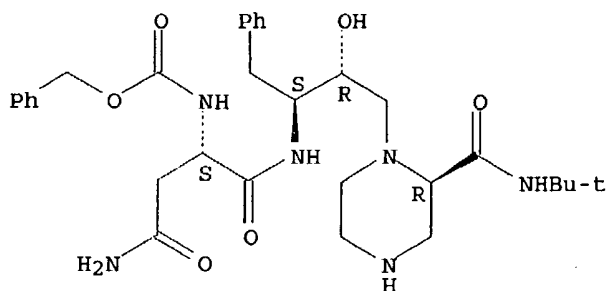


● HCl

RN 128111-43-3 CAPLUS

CN Carbamic acid, [3-amino-1-[[[3-[2-[[[(1,1-dimethylethyl)amino]carbonyl]-1-piperazinyl]-2-hydroxy-1-(phenylmethyl)propyl]amino]carbonyl]-3-oxopropyl]-, phenylmethyl ester, monohydrochloride, [2R-[1[1S*(S*),2R*],2R*]]- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.



● HCl

AB R1R2NCHR3CONHCHR4CR5R6CH2N(:O)nR7CHR8R9 [I; R1 = alkoxycarbonyl, aralkoxycarbonyl, (ar)alkanoyl, cycloalkylcarbonyl, aroyl, heterocyclylcarbonyl, alkylsulfonyl, etc.; R2 = H; R1R2N = cyclic aromatic imide; R3 = (cyclo)alkyl, (aryl)alkyl, aryl, heterocyclylalkyl, cyanoalkyl, etc; R4 = alkyl, cycloalkyl(alkyl), aryl(alkyl); R5 = H; R6 = OH; R5R6 = :O; R7R8 = (un)substituted (CH2)3, (CH2)4, with 1 CH2 optionally replaced by NH, N(acyl), S, etc., optionally carrying 1 fused cycloalkane or (hetero)aromatic ring; R9 = alkoxycarbonyl, monoalkylcarbamoyl, CONHCHR10CONHR11; R10, R11 = alkyl; n = 0, 1] and their pharmaceutically acceptable salts were prepared, e.g., by coupling amines H2NCHR4CR5R6CH2NR7CHR8R9 with acids R1R2NCHR3CO2H. Thus, N1-isobutyl-L-isoleucylamide (preparation given) was coupled with Z-proline succinimide ester (Z = benzyloxycarbonyl), the resulting dipeptide was deprotected and coupled with (Z-phenylalanyl)methyl bromide, the intermediate tripeptide reduced by NaBH4 in EtOH, deprotected, and coupled with Z-Asn-OH to give N2-[N-[3(S)-[(Z-asparaginyl)amino]-2(R,S)-hydroxy-4-phenylbutyl]-L-prolyl]-N1-isobutyl-L-isoleucylamide. One (unspecified) of 2 isomers of the latter in vitro inhibited human immunodeficiency virus protease with an IC50 of 0.13 μ M. IC50 values reported for 7 other I ranged from 0.01-0.87 μ M.

=>

=> s alzheimer and piperazine

L4 234 ALZHEIMER AND PIPERAZINE

=> d his

(FILE 'HOME' ENTERED AT 13:25:08 ON 28 FEB 2004)

FILE 'REGISTRY' ENTERED AT 13:25:18 ON 28 FEB 2004

L1 STRUCTURE UPLOADED

L2 10 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 13:25:57 ON 28 FEB 2004

L3 8 S L2

L4 234 S ALZHEIMER AND PIPERAZINE

=> s l3 and l4

L5 0 L3 AND L4

=> s l4 and preventing

L6 14 L4 AND PREVENTING

=> s l4 and prevention

L7 21 L4 AND PREVENTION

=> s l4 and prevention and preventing and disease

L8 4 L4 AND PREVENTION AND PREVENTING AND DISEASE

=> d l8 fbib hitstr abs total

L8 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:356443 CAPLUS

DN 138:368916

TI Preparation of heteroarylamines as glycogen synthase kinase 3beta inhibitors

IN Freyne, Eddy Jean Edgard; Buijnsters, Peter Jacobus Johannes Antonius; Willems, Marc; Embrechts, Werner Constant Johan; Love, Christopher John; Janssen, Paul Adriaan Jan; Lewi, Paulus Joannes; Heeres, Jan; De Jonge, Marc Rene; Koymans, Lucien Maria Henricus; Vinkers, Hendrik Maarten; Van Aken Koen, Jeanne Alfons; Diels, Gaston Stanislas Marcella

PA Janssen Pharmaceutica N.V., Belg.

SO PCT Int. Appl., 88 pp.

CODEN: PIXXD2

DT Patent

LA English

FAM.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003037891	A1	20030508	WO 2002-EP12077	20021029
	WO 2003037891	C1	20030904		

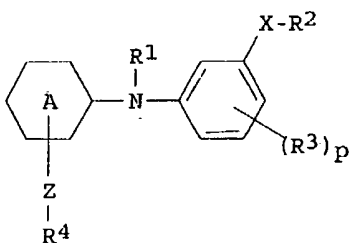
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HP, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 2001-204196 A 20011101

OS MARPAT 138:368916

GI



I

AB This invention concerns compds. of formula (I), N-oxides, pharmaceutically acceptable addition salts, quaternary amines and stereochem. isomeric forms thereof [wherein ring A = pyridyl, pyrimidinyl, pyrazinyl, pyridazinyl; R1 = H, aryl, formyl, C1-6 alkylcarbonyl, C1-6 alkyl, formyl-C1-6 alkyl, C1-6 alkyloxycarbonyl, C1-6 alkylcarbonyloxy, C1-6 alkyloxy-C1-6 alkylcarbonyl optionally substituted with C1-6 alkyloxycarbonyl; X, Z = a direct bond or a linker atom or group; R2 = H, each (un)substituted C1-10 alkyl, C2-10alkenyl, C2-10 alkynyl, or carbocycle or heterocycle group; R3 = H, HO, halo, each optionally substituted C1-6 alkyl, C1-6 alkenyl, or C2-6alkynyl, C1-6 alkyloxy, C1-6 alkylthio, C1-6 alkyloxycarbonyl, C1-6 alkylcarbonyloxy, CO2H, cyano, nitro, amino, mono- or di(C1-6 alkyl)amino, polyhalo-C1-6 alkyl, polyhalo-C1-6 alkyloxy, polyhalo-C1-6 alkylthio, R21, R21-C1-6 alkyl, R21O, R21S, R21CO, R21S(O)n, R21S(O)nNH, NHCHO, CONHNH2, R21CONH, C(:NH)R21, etc.; wherein n = 1,2; R21 = each (un)substituted saturated, partially saturated, or aromatic mono-, di-, or tricyclic carbocycle or

heterocycle group; R4 = (un)substituted saturated, partially saturated, or aromatic

mono-, di-, or tricyclic carbocycle or heterocycle provided that -X-R2 and/or R3 is other than hydrogen; p = 1-3]. These compds. are useful for the prevention or the treatment of diseases mediated through glycogen synthase kinase 3 β (GSK3 β) including bipolar disorder (in particular manic depression), diabetes, Alzheimer's disease, leukopenia, FTDP-17 (fronto-temporal dementia associated with Parkinson's disease), cortico-basal degeneration, progressive supranuclear palsy, multiple system atrophy, Pick's disease, Niemann Pick's disease type C, dementia pugilistica, dementia with tangles only, dementia with tangles and calcification, Down syndrome, myotonic dystrophy, Parkinsonism-dementia complex of Guam, AIDS related dementia, postencephalic Parkinsonism, prion diseases with tangles, subacute sclerosing panencephalitis, frontal lobe degeneration (FLD), argyrophilic grains disease, subacute sclerotizing panencephalitis (SSPE) (late complication of viral infections in the central nervous system), inflammatory diseases, cancer, dermatol. disorders, neuronal damage, schizophrenia, and pain. Thus, a mixture of 0.002 mol 2-[(4-cyano-3-benzyloxyphenyl)aminol]pyrimidine-4-carboxylic acid Et ester and 0.002 mol piperazine in 15 mL MeOH was stirred at room temperature for 1 day to give 0.32 g N-[2-[(4-cyano-3-benzyloxyphenyl)aminol]pyrimidin-4-ylcarbonyl]piperazine (II). II and 2-(1,3-benzodioxol-5-ylamino)-4-(2,4,6-trimethylphenylamino)pyrimidine showed pIC50 of 5.53 and 5.30, resp., against GSK3 β .

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:977659 CAPLUS

DN 138:205081

TI Preparation of aminoacylpiperazines and -piperidines for promoting neuronal repair or preventing neuronal damage.

IN Lauffer, David; Tomlinson, Ronald; Ottow, Eckard; Botfield, Martyn

PA Vertex Pharmaceuticals Incorporated, USA

SO PCT Int. Appl., 58 pp.

CODEN: PIXXD2

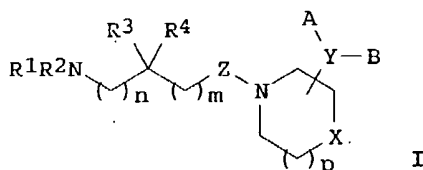
DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----

PI WO 2002102381 A1 20021227 WO 2002-US18999 20020613
 WO 2002102381 C2 20030306
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
 UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
 TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 US 2001-298328PP 20010614
 US 2002-170965 20020613
 US 2001-298328PP 20010614
 US 2003191117 A1 20031009
 OS MARPAT 138:205081
 GI



AB Title compds. [I; R1-R4 = (O-, S-, SO-, SO2-, CO-, NR5-interrupted) alkyl, aralkyl, alkenyl, alkynyl, aralkenyl, aralkynyl; R1R2, R3R4 = atoms to form (aryl-fused) 4-7 membered rings; m, n = 0, 1; X = C(R5)2, NR5, N, O, S, SO, SO2; Y = bond, (O-, S-, SO-, SO2-, CO-, NR5-interrupted) alkyl, alkenyl, alkynyl; Z = CO, CH2; p = 0-2; A, B = H, aryl; 2 C atoms in the ring containing X and N may be linked via an alkylene or alkenylene moiety], were prepared. Thus, N-benzyl-N-methylalanine, diisopropylethylamine, and pivaloyl chloride were stirred 2 h in CH2Cl2; 1-(4-fluorophenyl) piperazine in CH2Cl2 was added dropwise followed by stirring for 24 h to give 2-(benzylmethylamino)-1-[4-(4-fluorophenyl)-piperazin-1-yl]propan-1-one.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2002:849594 CAPLUS
 DN 137:353065
 TI Preparation of 4-heterocyclylquinoline derivatives as beta-amyloid precursor protein secretion promoters
 IN Kakihana, Mitsuru; Kato, Kaneyoshi; Mori, Masaaki; Yamashita, Toshiro
 PA Takeda Chemical Industries, Ltd., Japan
 SO PCT Int. Appl., 233 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002088087	A1	20021107	WO 2002-JP4148	20020425
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				

pheochromocytoma PC12h cell line and completely inhibited the apoptosis of PC12h cell caused by the glutamic acid-induced inhibition of the uptake of glutathione.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:754196 CAPLUS

DN 137:257677

TI Methods of treating or preventing Alzheimer's disease using 4-aryl-3-alkoxy piperidines and -azabicyclooctanes

IN Nieman, James A.; Fang, Lawrence; Jagodzinska, Barbara

PA Elan Pharmaceuticals, Inc., USA; Pharmacia & Upjohn Company

SO PCT Int. Appl., 449 pp.

CODEN: PIXXD2

DT Patent

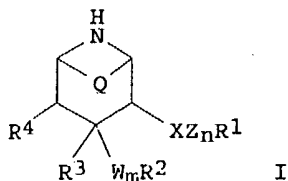
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002076440	A2	20021003	WO 2002-US9100	20020321
	WO 2002076440	A3	20021128		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2001-278371PP 20010323				
	US 2001-308729PP 20010730				

OS MARPAT 137:257677

GI



AB Disclosed are methods for treating or preventing Alzheimer's disease, and other diseases, and/or inhibiting β -secretase enzyme, and/or inhibiting deposition of A beta peptide in a mammal, using 3,4-disubstituted piperidiny l compds. (I) wherein the variables R1, R2, R3, R4, Q, W, X, Z, m, and n are defined below. Although neither the compds. nor the methods of preparation are claimed, .apprx.150 example preps., translations from the German examples of patent WO 9709311, are included. I inhibit β -secretase with IC50 < 50 μ M; compds. that are effective inhibitors of β -secretase activity demonstrate reduced cleavage of the substrate as compared to a control. In I, R1 is aryl, heterocycle; R2 is Ph, naphthyl, acenaphthyl,